



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,960	01/28/2004	Toshio Chiba	22040-00027-US	1959
30678	7590	09/18/2006	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ LLP			KOWALEWSKI, FILIP A	
P.O. BOX 2207			ART UNIT	
WILMINGTON, DE 19899-2207			PAPER NUMBER	
			3736	

o DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/707,960		CHIBA ET AL.	
	Examiner		Art Unit	
	Filip A. Kowalewski		3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/6/06; 1/30/04; 11/19/04</u> . | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference numeral 3 is absent in figure 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

However, Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15. Specifically, a translation is required of the foreign reference because the reference is not in the English Language.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8, 9, and 11-25 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application No. 2002/0099412 to Fischel et al. (hereinafter Fischell).

Fischell discloses the following claim limitations:

1. An in-vivo information extracting system comprising:
a tag device (Fig. 2 – 10 implanted system) which extracts in-vivo information in a living body; and
a relay device (Fig. 2 – 70 external data interface) which is installed outside the living body and near the tag device embedded in the living body,
wherein the tag device comprises power generating means (Fig. 2 – 90 power supply) for generating internal operating power from an electromagnetic wave fed from outside the tag device, and
the relay device comprises transceiver means (Fig. 11 – 710 RF receiver and 720 RF transmitter) for receiving, from the tag device, the in-vivo information extracted by the

Art Unit: 3736

tag device and transmitting the received in-vivo information to outside the relay device.

2. An in-vivo information extracting system comprising:

a tag device used in a living body (Fig. 2 – 10 implanted system),

a relay device (Fig. 2 – 70 external data interface) which is installed outside the living body and near the tag device placed in the living body, and

a main transceiver (Fig. 2 – 85 modem) which exchanges signals with the relay device,

wherein the tag device comprises:

tag reception means (Fig. 11 – 610 RF receiver) for receiving an electromagnetic wave fed from outside the tag device,

power generating means (Fig. 2 – 90 power supply) for generating internal operating power from the electromagnetic wave received by the tag reception means,

in-vivo information extracting means (Fig. 2 – 15 electrodes) for measuring an environment within the living body and outputting measured data, and

tag transmission means (Fig. 11 – 620 RF transmitter) for transmitting the measured data outputted by the in-vivo information extracting means to the relay device; and

wherein the relay device comprises:

relay reception means (Fig. 11- 710 RF receiver) for receiving the measured data transmitted by the tag device, and

relay transmission means (Fig. 11 – 750 modem) for transmitting the measured data received by the relay reception means to the main transceiver.

Art Unit: 3736

3. The in-vivo information extracting system according to claim 2, the relay device comprises a power supply which is a source of the operating power for the relay reception means and the relay transmission means (Para. 0118 - a power supply is inherent in the electronic devices disclosed).

4. The in-vivo information extracting system according to claim 3, the relay device comprises second relay transmission means (Fig. 11 – 720 RF transmitter) for generating and transmitting the electromagnetic wave to the tag device.

5. The in-vivo information extracting system according to claim 2, the relay device comprises data accumulating means for accumulating the measured data (Para. 0118 – memory is inherent in the electronic devices disclosed).

6. The in-vivo information extracting system according to claim 5, the relay transmission means comprises means for transmitting the measured data accumulated in the data accumulating means to outside the relay device in response to a request signal supplied from outside the relay device (Para. 0182).

8. The in-vivo information extracting system according to claim 2, the tag device comprises data accumulating means (Fig. 2 – 55 memory) for accumulating the measured data outputted by the in-vivo information extracting means.

9. The in-vivo information extracting system according to claim 8, the tag transmission means comprises means for transmitting the measured data accumulated in the data accumulating means to the relay device in response to a request signal supplied from outside the tag device (Para. 0182).

11. The in-vivo information extracting system according to claim 2, the tag reception means and the tag transmission means comprise a low-frequency coil antenna (Para. 0034 and Fig. 11 – 630 antenna).

12. The in-vivo information extracting system according to claim 2, the tag reception means and the tag transmission means comprise a radio-frequency planar loop antenna (Para. 0034 and Fig. 11 – 630 antenna).

13. The in-vivo information extracting system according to claim 2, the tag reception means and the tag transmission means use a container of the tag device as a radio-frequency antenna (Para. 0034 and Fig. 11 – 630 antenna).

14. The in-vivo information extracting system according to claim 2, the relay transmission means transmits control signals to the tag device; the tag reception means receives the control signals transmitted by the relay transmission means; and the tag device comprises control means for controlling the in-vivo information extracting means

Art Unit: 3736

based on the control signals received by the tag reception means (Para. 0026, 0035, and 0171).

15. A tag device used for an in-vivo information extracting system which extracts in-vivo information using the tag device placed in a living body and transmits the in-vivo information via a relay device outside the body, the tag device comprises:
tag reception means (Fig. 11 – 610 RF receiver) for receiving an electromagnetic wave fed from outside; and
power generating means (Fig. 2 – 90 power supply) for generating internal operating power from the electromagnetic wave received by the tag reception means; and
tag transmission means (Fig. 11 – 620 RF transmitter) for obtaining and transmitting measured data about an environment within the living body.

16. The tag device according to claim 15, comprising:
in-vivo information extracting means (Fig. 2 – 15 electrodes) for measuring the environment within the living body and outputting the measured data, wherein the tag transmission means transmits the measured data outputted by the in-vivo information extracting means (Para. 0170).

17. The tag device according to claim 15, further comprising: data accumulating means for accumulating the measured data (Fig. 2 – 55 memory).

Art Unit: 3736

18. The tag device according to claim 15, the tag reception means and the tag transmission means comprise a low-frequency coil antenna (Para. 0034 and Fig. 11 – 630 antenna).

19. The tag device according to claim 15, the tag reception means and the tag transmission means comprise a radio-frequency planar loop antenna (Para. 0034 and Fig. 11 – 630 antenna).

20. The tag device according to claim 15, the tag reception means and the tag transmission means use a container of the tag device as a radio-frequency antenna (Para. 0034 and Fig. 11 – 630 antenna).

21. The tag device according to claim 16, wherein the tag reception means receives control signals transmitted from outside; and comprising: the tag device comprises control means for controlling the in-vivo information extracting means based on the control signals received by the tag reception means (Para. 0026, 0035, and 0171).

22. A relay device used for an in-vivo information extracting system which extracts in-vivo information using a tag device placed in a living body and transmits the in-vivo information via the relay device outside the body, characterized in that the relay device comprises:

Art Unit: 3736

relay reception means (Fig. 11- 710 RF receiver) for receiving measured data about an environment within the living body extracted by the tag device; and
relay transmission means (Fig. 11 – 750 modem) for transmitting the measured data received by the relay reception means.

23. The relay device according to claim 22, further comprising: a power supply which is a source of operating power for the relay reception means and the relay transmission means (Para. 0118 - a power supply is inherent in the electronic devices disclosed).

24. The relay device according to claim 23, further comprising: second relay transmission means for generating and transmitting an electromagnetic wave in order for the tag device to generate its internal operating power (Fig. 11 – 720 RF transmitter).

25. The relay device according to claim 22, further comprising: data accumulating means for accumulating the measured data (Para. 0118 – memory is inherent in the electronic devices disclosed).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischell in view of U.S. Patent Application No. 2003/0009204 to Amundson et al. (hereinafter Amundson).

Fischell discloses a relay transmission means and a tag transmission means, but does not disclose a means for retransmitting data when an acknowledge signal is not received. However, Amundson, a reference in the analogous art of implantable device telemetry, a protocol for an implanted medical device to retransmit data when an acknowledge signal is not received from the recipient (Amundson, Para. 0014). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the and relay transmission means disclosed in Fischell to include the transmission protocol disclosed in Amundson, since retransmitting data when no acknowledge signal is received from the recipient is a more reliable method of transmitting data between medical devices (Amundson, Para. 0014).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Filip A. Kowalewski whose telephone number is 571-272-5668. The examiner can normally be reached on Monday - Friday: 8am - 4pm.

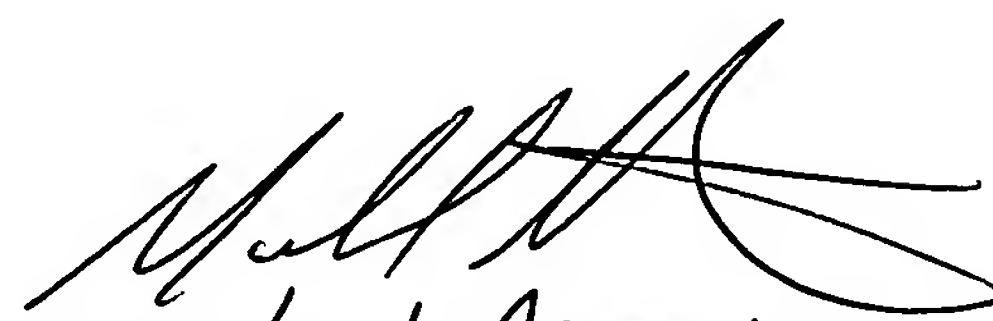
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on 571-272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3736

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FAK

September 8, 2006



Michael Astorino